

BOOK REVIEW

*Lichens of North America* by Irwin M. Brodo, Sylvia Duran Sharnoff, and Stephen Sharnoff. 2001. xxiii + 795 pp. illus. color photos, line drawings, and dot distribution maps. ISBN 0-300-08249-5 \$69.95 (hardcover). Yale University Press, New Haven, CT.

Lichens, lowly, unlovely lichens are the unlikely topic of the volume at hand. *Lichens of North America* is a production of pure visual splendor. It brings lichens to life in a manner that will not soon be matched. It is the result of the prodigious effort, sublime artistry, and singular devotion of Stephen Sharnoff and the late Sylvia Duran Sharnoff, whose photographs of lichens are the best I have ever seen. Their co-author, Irwin Brodo, wrote the accompanying descriptions and commentary for the photographs, nearly every one of which is a small masterpiece. Whether it is a close-up shot or a portrait of lichens in their natural habitat, each image invites the reader to appreciate, to touch, even to smell the lichens. Having attempted on my own over the past two decades to photograph lichens, I am thrilled with and yes, a little jealous of, the success of the images on these pages.

An introduction of over one hundred pages precedes the main (taxonomic) part of the text. Each chapter of the introduction starts with an epigram, sending a potent message that implies the importance of lichens in literature and in natural history. While they are the subject of soliloquies by the likes of Browning and Thoreau, lichens have, in fact, been relatively neglected over the past couple of centuries by the scientific community. The introduction attempts to right this wrong with succinct discussions of lichen morphology, chemistry, classification, biogeography, and reproduction. However, the attempt is less than successful, at least from a scientific perspective. The greatest problem is that the issues raised in the introduction are not treated in sufficient depth. The chapters, which are generally well written, correspond to an abbreviated list of references (not cited in the text) that are found at the back of the book. The bibliography is much too short. Little in the way of new literature is offered, and many of the sources date from the 1970s and '80s, the height of co-author Brodo's lichenological career. For example, the chapter on the geography of North American lichens offers less than ten references. The



authors defend this unwarranted brevity with the rationalization that the references are general and that “sixty-five other publications were consulted.” The fact that none of these publications was cited for the benefit of interested readers is a hint that *Lichens of North America* is less than a serious scientific contribution. One of the high points of the introduction is a chapter offering useful hints for observing and collecting lichens. Another short chapter on human uses of lichens uses winsome photographs to illustrate the text, but much of the chapter, like most of the diagrams in the book, has been served up in previous works. The too-selective bibliography and the rearming of a number of old lichen illustrations (some of which were previously redrawn from even earlier sources) provide further hints that this book fails to attain a certain hoped-for standard of scientific relevance. In all fairness, it should be noted that for the libraries of undergraduate students and for an apparently growing audience of amateur lichenologists, the book will provide a good reference, or at least a starting point.

Why do authors still classify the growth forms of lichens as crustose, foliose, and fruticose? Perhaps it fulfills a human need, articulated by Plato, to construct a world of ideals and essences. Unfortunately, the organismic world defies such a construct, and lichens are more frustrating than most organisms when it comes to pigeonholing their morphological characteristics. Yet, co-author Brodo has attempted just this. In view of his wide experience with lichens, one wishes that he would have offered us a more critical perspective on lichen form, but we are disappointed again by a facile account of the gross anatomy of lichens, and by the authors' insistence on redrawing figures from earlier texts that are perfectly accessible in their own right. Perhaps the intent was to attract future scholars to the lichen world. Perhaps the authors hoped to engage an audience of amateurs who may lack access to a good scientific library, but with the sumptuous photographs found throughout the text, we fear that Brodo and his co-authors have gilded the lily. It would have been far better to let the original, beautiful photographs in this text tell their own story of lichen form.

Sadly, abbreviation must suffice in this book, which turns out to be more a digest of the North American lichens than a scientific treatise. For example, to find the author of a name of a species, which might give a serious student a handle on taxonomic con-



cepts and history, one has to dig through the index. That problem is surmountable with enough ambition and patience. Other omissions are more serious. Abbreviation, especially in taxonomic accounts, misleads readers by providing an incomplete picture of the extent and background of the species. The problem is nowhere more palpable than in the taxonomic section of this book, where the authors have simply excluded hundreds of species from the dichotomous keys and their attendant descriptions. I can only speak to the veracity of treatment given the lichen family Cladoniaceae, which has been my focus of study for almost twenty years. As elsewhere in the text, the photographs of *Cladonia* lichens and their allies range from excellent to breathtaking. However, by excluding over a dozen new species in his account, Brodo has taken us back taxonomically to 1978, when *C. verruculosa* was recognized as a distinct entity in the North American lichen flora. The insensitivity of excluding so many species that have been recognized since the late 1970s is inexcusable, notwithstanding the fact that I am the author of many of them! Other authors of *Cladonia* and other genera were also ignored, but Brodo and his collaborators have provided little or no hint as to what else is "out there." They have apparently been selective about their distribution maps as well. At least in the Cladoniaceae, it seems that the authors have chosen to ignore several recent accounts of the biogeography of the group.

It will be up to future generations of readers to find the lacunae in this book. They may, however, be distracted by trying to memorize the specious, insulting "common names" that have been appended to taxa described within. The authors have done a real disservice to lichenology by imposing their cloying appellations on readers. Need I refer to the names "pompon shadow lichen," "finger-scale foam lichen," or "changing earthscale" to understand the crust I see on a rock? Does anyone's appreciation of nature benefit from the authors' misleading anthropomorphisms like "rough eyelash lichen" or "split-peg soldiers"? Ultimately, *Lichens of North America* is a scientific disappointment. I hasten to add that not everyone requires scientific accuracy to get a kick out of nature. This handsome volume will be sure to delight the eye of anyone who opens it. It may indeed inspire further nature study, though its large format would tend to take up too much room on a field trip. At just shy of seventy dollars the book is a real bargain, and I suggest you buy it for someone who likes



more than just pretty pictures of nature. Larger than a stocking-stuffer and eminently more valuable, *Lichens of North America* will soon take its place as the foremost introductory text to the lichens of this continent. In spite of its shortcomings, it is sure to find its place on the shelves and in the laboratories of lichenologists around the world.

—SAMUEL HAMMER, College of General Studies, 871 Commonwealth Avenue, Boston University, Boston, MA 02215.